



The Environmental Studies Program (ESP) was established in 1973 under the Outer Continental Shelf Lands Act (OCSLA) as a means to gather and synthesize environmental and social and economic science information to support decision-making concerning the offshore oil and gas program. Today, the ESP includes research for offshore renewable energy development and the marine minerals program for coastal restoration projects. In addition to conducting the focused environmental research in areas of existing or proposed activities, the ESP must also ensure that the research conducted is accessible.

The Environmental Studies Program Information System (ESPIS) makes all completed ESP reports available on-line as full electronic pdf documents, including images and graphics. Technical summaries of over 700 BOEM-sponsored environmental research projects, as well as full pdf documents of over 2,000 research reports, are available for online full text search. The information is grouped geographically to locate the most useful documents. Geographic locations for the research include the Gulf of Mexico, Atlantic, Pacific, and Alaska. A National study is research that pertains to more than one geographic region (e.g., the effects of wind on oil spill spreading).

This updated tool was designed to enhance the ability of MarineCadastre.gov, BOEM, and its partners to geographically discover BOEM Environmental Studies information and data. The focus will be on providing BOEM NEPA Analysts and other agencies that do environmental consultations under NEPA or other offshore planning processes the ability to explore, discover, and access reports, metadata and data that exist in ESPIS, the National Oceanographic Data Center, Ocean.Data.Gov and other internet-accessible content.

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geoESPIS application entry page found at:
marinecadastre.gov/espis

On this page, search by:

1: Subject keyword

2: Location keyword

3: Proceed to next page for more filter options

4: Email us at:

espis@boem.gov

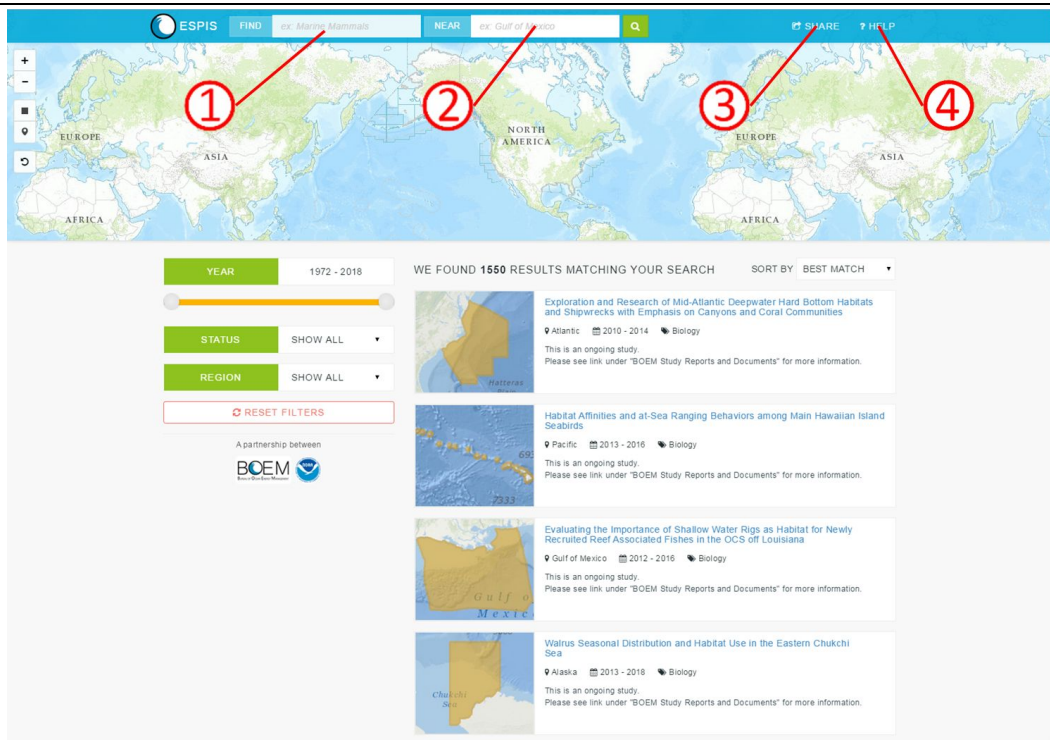
5: Help Document



After clicking SEARCH, the same subject and location search boxes are available and located at the top of the screen (1 and 2).

3: Share your search criteria in a link using the share button.

4: Help Document



Below the search text boxes, you can also search by selecting a location on the map.

The map buttons on the left:

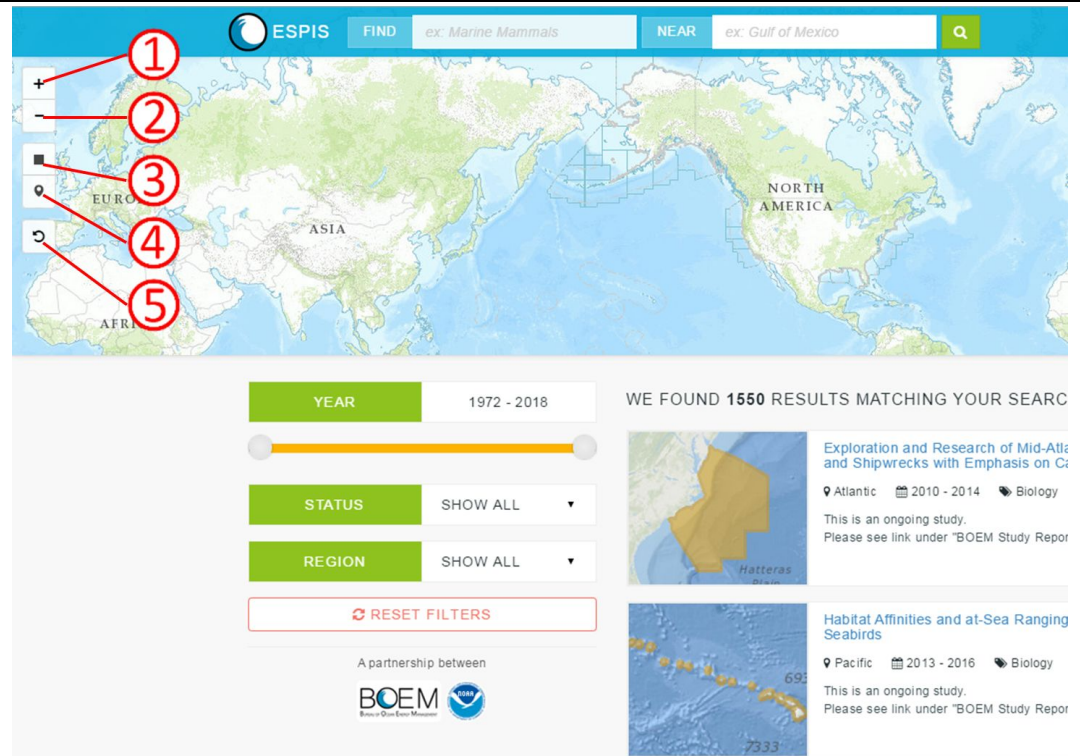
1: Zoom in

2: Zoom out

3: Draw a box to select an area

4: Select a point

5: Reset search parameters

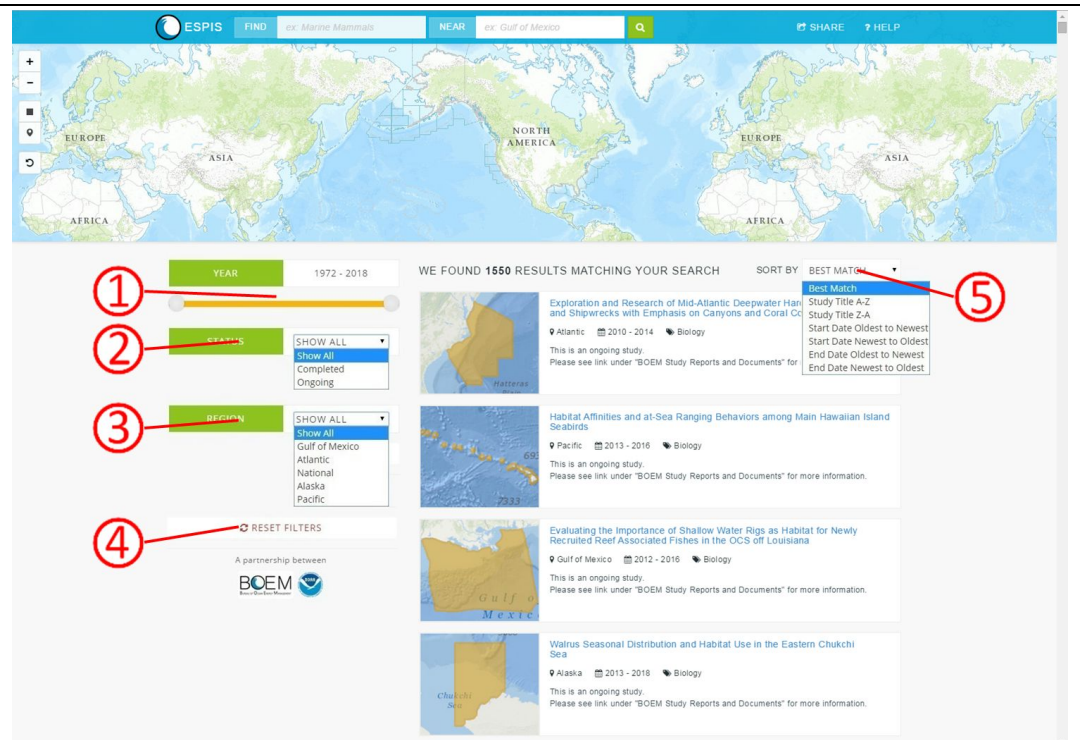


Below the map search, there are more filter options.

1: Range of years slider bar. Move the circles on either side of the bar to adjust the date range.

2: Study status drop down menu

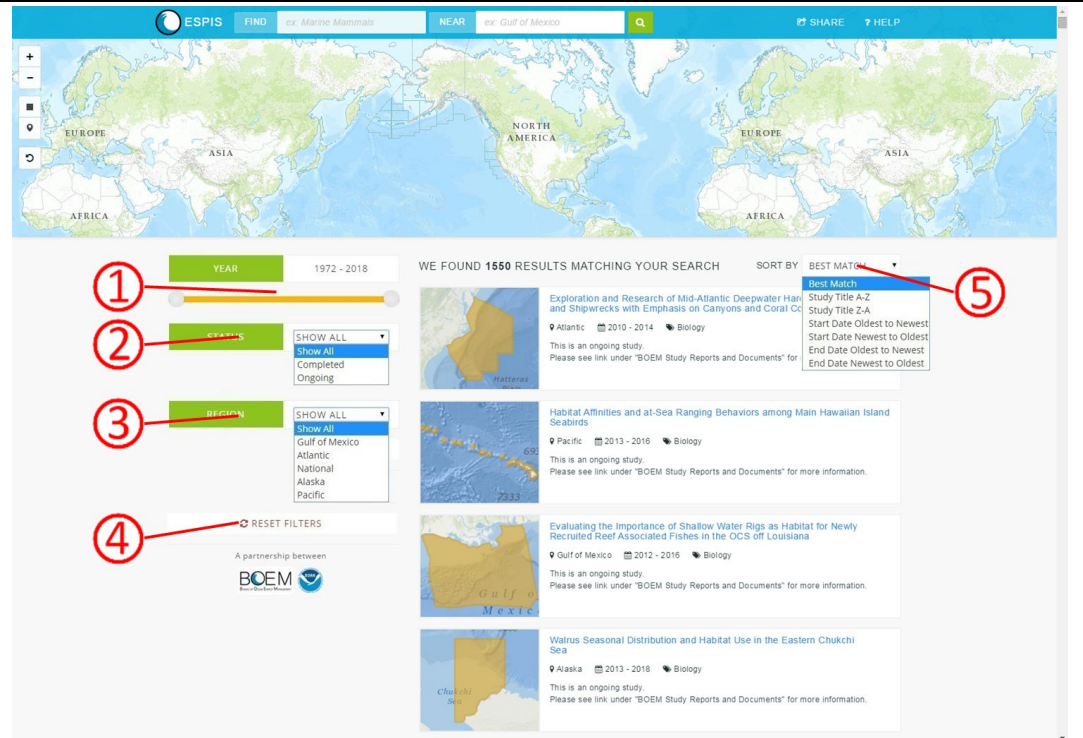
3: Study region drop down menu. By selecting a region, the search is refined to include all studies that intersect that particular region, often including studies that are "national" in scope as well.



4: Reset search filters button. Clicking this button resets the filters to the default settings. *This does not clear the map or the keyword search. Those must be cleared separately.

5: Sort results drop down menu

Study results are presented in blue text.



After selecting a study, the study info screen will slide in from the right.

1: Go back to study filter screen

2: Study region, dates, status and description

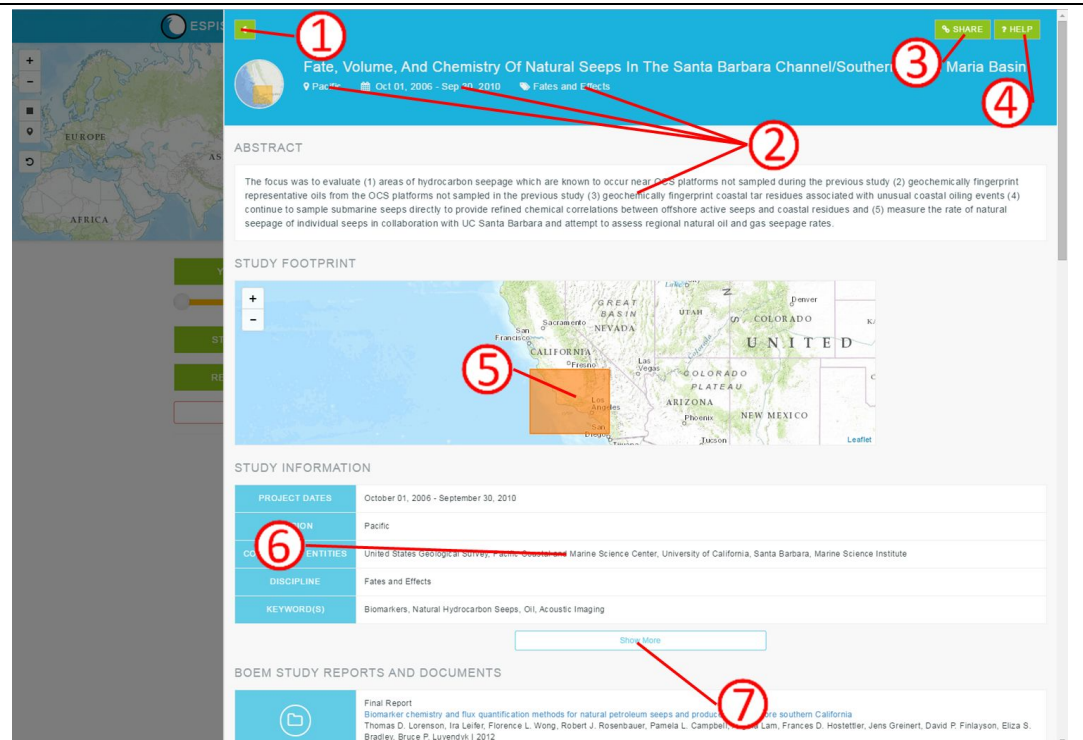
3: Share this study page url

4: Help document

5: Study area footprint

6: Study info

7: Show more study info



1: Additional study info
after clicking Show More

2: Show less study info

3: Study reports and
documents. Click on the
blue text to access them.

4: Related publications

5: Data products. Click on
the blue text to access
them.

STUDY INFORMATION

PROJECT DATES	October 01, 2006 - September 30, 2010
REGION	Pacific
CONDUCTING ENTITIES	United States Geological Survey, Pacific Coastal and Marine Science Center, University of California, Santa Barbara, Marine Science Institute
FUNDING ENTITIES	Department of the Interior, Bureau of Ocean Energy Management
AWARD TYPE	IA (Interagency Agreement)
DISCIPLINE	Fates and Effects
SURVEY TYPE(S)	Ship
INSTRUMENT TYPE(S)	side-scan sonar, spectrometer, radiometer, remotely operated underwater vehicle, multibeam echosounder
1	tar residue, hydrocarbon seepage, seabed oil
2	Biomarkers, Natural Hydrocarbon Seeps, Oil, Acoustic Imaging

[Show More](#)

BOEM STUDY REPORTS AND DOCUMENTS

- Final Report
[Biomarker chemistry and flux quantification methods for natural petroleum seeps and produced oils offshore southern California](#)
Thomas D. Lorenson, Ira Leifer, Florence L. Wong, Robert J. Rosenbauer, Pamela L. Campbell, Angela Lam, Frances D. Hostettler, Jens Greinert, David P. Finlayson, Eliza S. Bradley, Bruce P. Luyendyk | 2012
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Technical Summary
[Biomarker chemistry and flux quantification methods for natural petroleum seeps and produced oils offshore southern California](#)
Thomas D. Lorenson, Ira Leifer, Florence L. Wong, Robert J. Rosenbauer, Pamela L. Campbell, Angela Lam, Frances D. Hostettler, Jens Greinert, David P. Finlayson, Eliza S. Bradley, Bruce P. Luyendyk | 2012

RELATED PUBLICATIONS

- Bradley ES, Leifer I, Roberts D. 2010. Long-term monitoring of a marine geologic hydrocarbon source by a coastal air pollution station in southern California. *Atmospheric Environment*. 44(38): 4973-4981.
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Draut AE, Hart PE, Lorenson TD, Ryan HF, Wong FL, Siller RW, Conrad JE. 2009. Late Pleistocene to Holocene sedimentation and hydrocarbon seeps on the continental shelf of a steep, tectonically active margin, southern California, USA. *Marine Geophysical Researches*. 30(3): 193-206.
- Leifer I, Culling D. 2010. Mapping hydrocarbon seep bubbles. Application to marine hydrocarbon seeps in the Santa Barbara Channel. *Russian Geology and Geophysics*. 43(7): 613-621.
- Leifer I, Culling D. 2010. Formation of seep bubble plumes in the Coal Oil Point seep field. *Geo-Marine Letters*. 30(3-4): 339-353.
- Lorenson TD, Hostettler FA, Rosenbauer RJ, Peters KA, Wong F, Kvenvolden KA, Helix ME. "Natural offshore seepage and related tarball accumulation on the California coastline." Presentation at 2010 Geological Society of America Annual Meeting, Denver, CO, October 31 - November 3, 2010.
- Lorenson TD, Hostettler FD, Dougherty JA, Rosenbauer RJ, Peters KE, Dunaway ME. "Overview of natural oil seepage in the Santa Barbara Channel and southern Santa Maria Basin, southern California." Presentation at California and the World Ocean '06, Long Beach, CA, September 18-20, 2006.
- MacDonald IR, Leifer I, Sassen R, Stine P, Mitchell R, Guinasso N. 2002. Transfer of hydrocarbons from natural seeps to the water column and atmosphere. *Geofluids*. 2(2): 95-107.
- Patro R, Leifer I, Bowyer P. Better bubble process modeling: improved bubble hydrodynamics parameterization. In: Donelan MA, Drennon WM, Saltzman ES, Wanninkhof R, editor. *Gas transfer at water surfaces*. *Geophysical Monograph Series* 127. American Geophysical Union; 2001. 315-320.
- Peters KE, Hostettler FF, Lorenson TD, Rosenbauer RJ. 2008. Families of miocene monterey crude oil, seep, and tarball samples, coastal California. *AAPO Bulletin*. 92(9): 1131-1152.
- Roberts DA, Bradley ES, Cheung R, Leifer I, Dennison PE, Margolis JB. 2010. Mapping methane emissions from a marine geological seep source using imaging spectrometry. *Remote Sensing of Environment*. 114(3): 592-606.
- US Dept. of the Interior, US Geological Survey. Natural offshore seepage and related tarball accumulation on the California coastline: Santa Barbara Channel and the southern Santa Maria Basin; source identification and inventory. Washington, DC. 2009. Available From: <http://pubs.usgs.gov/of/2009/1225/>
- Wong F, Lorenson T, Dartnell P, Day J, Fong G, Helix ME, Hart P, Hostettler F, Kvenvolden K, Leifer I, et al. "Sources, transportation, and fate of natural oil and gas seeps, southern California." Presentation at 7th USGS Biennial Geographic Information Science Workshop, Denver, CO, May 12-16, 2008.
- Dartnell P, Lorenson T, Edwards B [Internet]. ; 2007. [cited 2014 Aug 5]. Available from: <http://soundwaves.usgs.gov/2007/09/>

DATA PRODUCTS

- Natural Offshore Oil Seepage and Related Tarball Accumulation on the California Coastline—Santa Barbara Channel and the Southern Santa Maria Basin Source Identification and Inventory
US Dept. of the Interior, United States Geological Survey Publications Warehouse
- Natural Offshore Oil Seepage and Related Tarball Accumulation on the California Coastline—Santa Barbara Channel and the Southern Santa Maria Basin Source Identification and Inventory
US Dept. of the Interior, United States Geological Survey Publications Warehouse
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Natural Offshore Oil Seepage and Related Tarball Accumulation on the California Coastline—Santa Barbara Channel and the Southern Santa Maria Basin Source Identification and Inventory
US Dept. of the Interior, United States Geological Survey Publications Warehouse
- Natural Offshore Oil Seepage and Related Tarball Accumulation on the California Coastline—Santa Barbara Channel and the Southern Santa Maria Basin Source Identification and Inventory
US Dept. of the Interior, United States Geological Survey Publications Warehouse
- California — Produced and Seep Oil in the Santa Barbara Channel Area
BOEM/NOAA